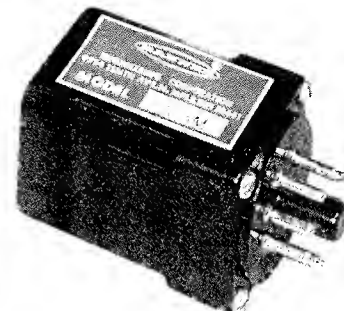


DESCRIPTION

The PL3-M is a complete modulated LED amplifier in a plug-logic package; it is intended for OEM use in systems already containing power supplies and solid-state logic. It may be powered by 12 to 18 VDC, and has a switched logic-level output (10 milliamps maximum) that is high in the "light" state and low in the "dark" state. It may be used with any of the LED scanners listed on pages 62-65 of the product catalog, however range will be reduced by 50% in all cases. Hookup is identical to that for "M" Series amplifiers, except that pin 3 is used for sensitivity adjustment rather than for inhibiting.

**SPECIFICATIONS**

Supply Voltage: 12 to 18 volts DC at 75 milliamps nominal; ripple must be less than 10%.

Output: Short-circuit proof open collector with 560-ohm output impedance. If a voltage output is required, a 10K-ohm resistor should be connected externally between pins 7 and 8. The output is logic level only and should not be used with relay-type or current-type loads. It will interface directly with the input (pins) of any "B" Series amplifier.

Operating Mode: Output transistor conducts (sink to ground) when receiver is "dark"; output transistor is off when receiver sees "light". Any number of outputs may be tied together to create "or" logic ("A" dark or "B" dark or "C" dark = output. Also, "A" light and "B" light and "C" light = output).

Range: Depends entirely on scanners and scanning modes used, and will in all cases be 50% of the ranges specified in the product catalog for the scanner as used with a "M" Series amplifier.

Response time: 1 millisecond for both LIGHT and DARK (500 Hz maximum).

Operating Temperature: -40 to +70 degrees C. (-40 to +158 degrees F.).

Construction: Totally encapsulated plug-in module (standard octal base); constructed for extreme immunity to shock, vibration, and moisture; output is completely short-circuit proof.

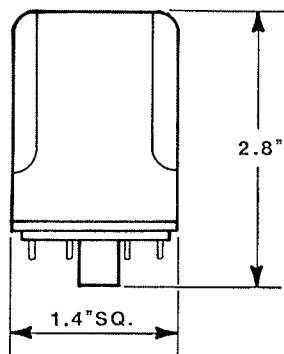
Sensitivity: Amplifier gain is fixed; should less sensitivity be needed, a fixed or variable resistor may be connected externally between pins 3 and 4 (1K-ohm resistor will reduce signal to 50%; 100K-ohm resistor will reduce signal to 10%).

(over)

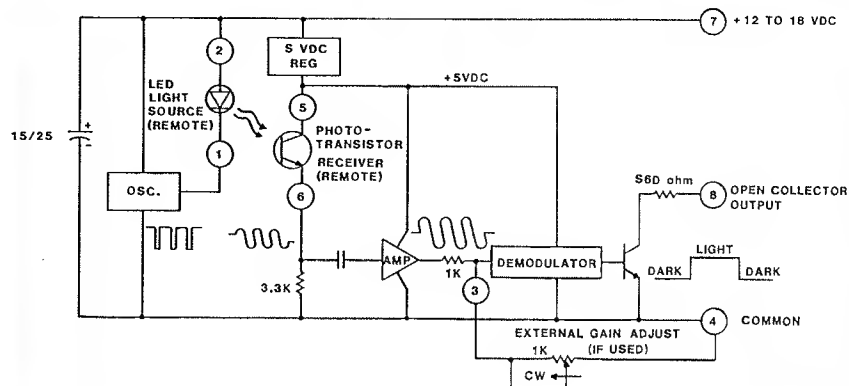
PL3-M

(continued)

DIMENSION DRAWING



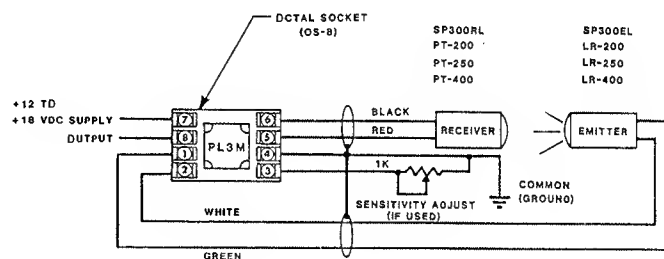
FUNCTIONAL SCHEMATIC



IMPORTANT NOTE REGARDING "PLUG-LOGIC"

The PL3-M is normally used in conjunction with some other "B" Series or "M" Series module. In those cases, the power for the PL3-M is taken from pins 4 and 7 of the other module. There are, however, occasions when the PL3-M may be used alone. In these situations, it is important that the DC power used have less than 10% ripple. If the MRB series of control chassis is used as the power source, there is no filtering provided; consequently, a filter capacitor must be installed between pins 7 and 4 of the socket into which the PL3-M module is to be installed. This capacitor may be of any value equal to or greater than 250 microfarads, rated 25 volts DC or more (electrolytic capacitor). The positive lead goes to pin 7, the negative to pin 4.

HOOKUP DIAGRAM



WARRANTY

Banner Engineering Corporation warrants its products to be free of defects for one year. Banner Engineering Corporation will repair, or replace, without charge, any product of its manufacture found to be defective at the time it is returned to the factory during the warranty period. This warranty does not cover damage or liability for improper application of Banner Products. This warranty is in lieu of any other warranty either expressed or implied.